International application No. PCT/FI 2004/050196

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: D21C 1/06, D21C 3/02, D21C 3/22
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: D21C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0810321 A1 (SUNDS DEFIBRATOR PORI OY), 3 December 1997 (03.12.1997), figure 1, claim 1	1-11
Y	WO 9914423 A1 (KVAERNER PULPING AB), 25 March 1999 (25.03.1999), page 2, line 3 - line 27; page 6 - page 7; page 11, line 34 - page 12, line 2	1-11
A	US 6350348 B1 (KAJ HENRICSON ET AL), 26 February 2002 (26.02.2002), column 2, line 29 - line 37; column 7, line 3 - line 9	1-11
		

X	Further documents are listed in the continuation of Box	C.	X See patent family annex.		
*	Special categories of cited documents:	″T"	later document published after the international filing date or priority		
"A"	document defining the general state of the art which is not considered to be of particular relevance	_	date and not in conflict with the application but cited to understand the principle or theory underlying the invention		
"E"	earlier application or patent but published on or after the international filing date	"X"	document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive		
"L"	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		step when the document is taken alone		
			document of particular relevance: the claimed invention cannot be		
"O"	document referring to an oral disclosure, use, exhibition or other means		considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art		
"P"	document published prior to the international filing date but later than the priority date claimed	"& "	•		
Dat	e of the actual completion of the international search	Date	of mailing of the international search report		
,	May 2005				
Ĺ	May 2005	0 4 -05- 2005			
Name and mailing address of the ISA/			Authorized officer		
Sw	edish Patent Office				
Box 5055, S-102 42 STOCKHOLM		Marianne Bratsberg/EÖ			
Facsimile No. +46 8 666 02 86			Telephone No. +46 8 782 25 00		

International application No.

PCT/FI 2004/050196

C (Continu	ation). DOCUMENTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 0125531 A1 (VALMET CHEMICAL PULPING OY), 12 April 2001 (12.04.2001), figure 1	1-11
		
A	EP 0520452 A1 (SUNDS DEFIBRATOR PORI OY), 30 December 1992 (30.12.1992), figure 4	1-11
		
A	US 4578149 A (BERTIL K. E. FAGERLUND), 25 March 1986 (25.03.1986), figure 1, abstract	1-11
i i		
		·

Information on patent family members

01/04/2005

International application No.

PCT/FI 2004/050196

EP	0810321	A1	03/12/1997	SE	0810321 T3	
				AT	202167 T	15/06/2001
				AU	721440 B	06/07/2000
				AU	2016297 A	04/12/1997
				BR	9703156 A	27/10/1998
				CA	2203096 A	30/11/1997
				CN	1109160 B,C	21/05/2003
				CN	1170795 A	21/01/1998
				DE	69705160 D,T	16/05/2002
				ES	2159385 T	01/10/2001
				FI	105929 B	00/00/0000
				FI	962260 A	01/12/1997
				ID	18445 A	00/00/0000
				JP	10053989 A	24/02/199
				NO	972456 A	01/12/199
				NZ	314898 A	26/06/199
				PT	810321 T	31/10/200
				RU	2128259 C	27/03/199
				ZA	9703887 A	08/12/199
WO	9914423	A1	25/03/1999	AT	201462 T	15/06/200
				AU	9195598 A	05/04/199
				DE	69704943 D	00/00/000
				EP	0903436 A,B	24/03/199
				SE	0903436 T3	00 (00 (000
				JP	2003526740 T	09/09/200
				SE	9703365 D	00/00/000
				US	6143130 A	07/11/200
US	6350348	B1	26/02/2002	CA	2278181 A	30/07/199
				ΕĪ	3198 U	16/12/199
				FI	970254 A,V	23/07/199
				SE	9902745 A	21/09/199
				ÃÔ	9832912 A	30/07/199
				FI	991579 A	10/09/199
WO	0125531	A1	12/04/2001	AU	7666500 A	10/05/200
				BR	0013839 A	14/05/200
				CA	2381414 A	12/04/200
				EP	1242674 A	25/09/200
				ΕĪ	110327 B	00/00/000
				FI JP	992132 A 2003511569 T	05/04/200 25/03/200
						7 L / (17 / 7/10/1

Information on patent family members

01/04/2005

International application No. PCT/FI 2004/050196

EP	0520452	A1	30/12/1992	SE AU AU BR CA DE ES FI JP NO PT RU US ZA	0520452 T3 138129 T 660023 B 1827392 A 9202492 A 2072479 A,C 69210692 D,T 2089296 T 92224 B,C 913160 A 3513619 B 5186984 A 180386 B,C 922513 A 100633 A,B 2084575 C 5643410 A 9204357 A	15/06/1996 08/06/1995 07/01/1993 09/02/1993 29/12/1992 23/01/1997 01/10/1996 30/06/1994 29/12/1992 31/03/2004 27/07/1993 30/12/1996 29/12/1992 29/04/1994 20/07/1997 01/07/1997 31/03/1993
US	4578149	A	25/03/1986	BR CA FI JP JP JP SE SE	8201145 A 1179807 A 79724 B,C 820643 A 1712630 C 2044957 B 57176282 A 463267 B 8201334 A	11/01/1983 25/12/1984 31/10/1989 06/09/1982 27/11/1992 05/10/1990 29/10/1982 29/10/1990 06/09/1982